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**THE MEDIATING ROLE OF INTERNAL MARKETING  
ON THE DRIVERS  
OF THE SERVICE EXCELLENCE PERFORMANCE**



**HASFIZANI ARIFFIN**

**UUM**  
Universiti Utara Malaysia

**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
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**THE MEDIATING ROLE OF INTERNAL MARKETING  
ON THE DRIVERS  
OF THE SERVICE EXCELLENCE PERFORMANCE**

**By**



**HASFIZANI ARIFFIN**

**UUM**  
Universiti Utara Malaysia

**Thesis Submitted to Othman Yeop Abdullah Graduate School of Business,  
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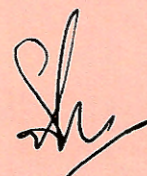


Nama Nama Pelajar  
(Name of Student) : **Hasfizani Binti Haji Ariffin**

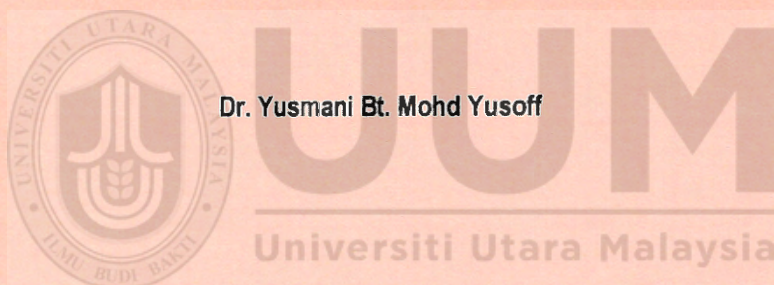
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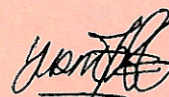
Nama Penyelia/Penyelia-  
penyelia  
(Name of  
Supervisor/Supervisors) : **Prof. Dr. Sany Sanuri Mohd. Mokhtar**



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## Abstract

Assessing the performance of the service is challenging, since the character of the service is unique, making it difficult to produce and measure, but the importance of service development in any sector is critical. Hence, this study assesses aspects related to conceptualisations and measurement models on service excellence performance in higher education perspectives. In providing the world's leading high-quality educational hub, the Malaysian higher education sector must balance academic and non-academic performance. This thesis therefore analysed the drivers of the performance of service excellence to be implemented at Malaysian public universities within non-academic units/departments. The goal of this study is to fill the knowledge gaps in the implementation of the service excellence performance at Malaysian Public Universities. This research therefore proposed and analysed the service excellence performance model underpinned by the Resources Advantage (R-A) Theory. This study proposed Managerial Competency, Productive Service Employee and Technology Innovation as the Service Excellence Drivers with Internal Marketing served as the intervening variable towards Service Excellence Performance as the dependent variable. The study involved two groups of respondents with a total of 490 administrators /managers and internal clients at the non-academic units/departments of nineteen Malaysian public universities. This study employed quantitative approach with closed-ended questionnaires. The results indicated that the productive service employee contributed greatly to the performance of service excellence in the non-academic departments in the Malaysian public universities. The results of the study contributed theoretically, methodologically and practically to the implementation of the service excellence performance to literature, practitioners at Malaysian public universities, the Malaysian higher education industry and future researchers in a related field of study.

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**Keywords:** service excellence, managerial competency, productive service employee, technology innovation, internal marketing.

## Abstrak

Dalam menilai prestasi sesebuah perkhidmatan adalah sesuatu yang mencabar, kerana sifat perkhidmatan itu sendiri yang unik, sehingga ianya sukar untuk dihasilkan atau diukur, tetapi kepentingan perkhidmatan di mana-mana sektor telah menjadi sangat penting. Oleh yang demikian, kajian ini menilai aspek yang berkaitan dengan konsep dan model pengukuran terhadap prestasi kecemerlangan perkhidmatan dalam perspektif pendidikan tinggi. Dalam menyediakan hab pendidikan berkualiti tinggi yang terkemuka di dunia, sektor pendidikan tinggi Malaysia haruslah mengimbangi prestasi akademik dan bukan akademik. Oleh itu, tesis ini menganalisa faktor pendorong kepada prestasi kecemerlangan perkhidmatan untuk dilaksanakan di unit/jabatan bukan akademik di Universiti Awam Malaysia. Matlamat kajian ini adalah untuk mengisi jurang pengetahuan dalam pelaksanaan prestasi kecemerlangan perkhidmatan di Universiti Awam Malaysia. Oleh itu, penyelidikan ini mencadangkan dan menganalisa model prestasi kecemerlangan perkhidmatan yang dipandu oleh Teori Resources Advantage (R-A). Kajian ini mencadangkan kompetensi pengurus, pekerja perkhidmatan yang produktif dan inovasi teknologi sebagai pamacu kepada kecemerlangan perkhidmatan dengan pemasaran dalaman berfungsi sebagai pemboleh ubah interven ke arah pelaksanaan kecemerlangan perkhidmatan sebagai pemboleh ubah bersandar. Kajian ini melibatkan dua kumpulan responden dengan jumlah 490 pentadbir/pengurus dan pelanggan dalaman di unit/jabatan bukan akademik dari sembilan belas universiti awam Malaysia. Kajian ini menggunakan pendekatan kuantitatif dengan soal selidik tertutup. Hasil kajian menunjukkan bahawa pekerja perkhidmatan yang produktif memberikan sumbangan terbesar terhadap prestasi kecemerlangan perkhidmatan di jabatan bukan akademik di Universiti Awam Malaysia. Hasil kajian menyumbang secara teori, metodologi dan praktikal terhadap pelaksanaan prestasi kecemerlangan perkhidmatan kepada kesarjanaan, perlaksana di Universiti Awam Malaysia, industri pendidikan tinggi Malaysia dan penyelidik masa depan dalam bidang pengajian yang seumpama.

Kata kunci: kecemerlangan perkhidmatan, kopetensi pengurus, pekerja perkhidmatan yang produktif, inovasi teknologi, pemasaran dalaman.



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## Table of Content

<b>1</b>	<b>Chapter One: An Overview .....</b>	<b>1</b>
1.1	Background of the Study .....	1
1.2	Problem Statement .....	10
1.3	Research Questions .....	20
1.4	Research Objectives .....	21
1.5	Scope of the Study .....	22
1.6	Importance of the Study .....	23
1.7	Operational Definition of Variables Under Study .....	26
1.7.1	Service Excellence Performance .....	26
1.7.2	Managerial Competency .....	26
1.7.3	Productive Service Employee .....	26
1.7.4	Technology Innovation .....	27
1.7.5	Internal Marketing .....	27
1.8	Organisation of Study Report .....	28
<b>2</b>	<b>Chapter Two: An Overview .....</b>	<b>29</b>
2.1	The Higher Education Industry (HEI) .....	29
2.1.1	The Malaysian Higher Education Industry .....	33
2.1.2	The Malaysian Public Universities (PUs) .....	37
2.2	Introduction to Service Industry .....	41
2.2.1	Service Description .....	44
2.2.2	Service Element .....	45
2.2.3	Service Delivery .....	49
2.2.4	Services at the Higher Education Industry (HEI) .....	51

2.3	The Service Excellence (SE) Performance .....	53
2.3.1	Outlining Service Excellence .....	55
2.3.2	The Service Excellence (SE) Drivers .....	57
2.3.3	Terminology of Concept that Overlapping Service Excellence .....	60
2.4	Managerial Competencies .....	63
2.4.1	Outlining Managerial Competency .....	68
2.5	Productive Service Employee .....	75
2.5.1	Outlining Productive Service Employee .....	81
2.6	Technology Innovation .....	89
2.6.1	Outlining Technology Innovation .....	100
2.7	Internal Marketing .....	106
2.7.1	Outlining Internal Marketing .....	115
2.8	Underpinning Theory: The Resources Advantage (R-A) Theory .....	128
2.8.1	Illustration of Underpinning Theory .....	132
2.9	Proposed Research Model .....	133
2.10	Hypotheses Development .....	134
2.10.1	Managerial Competency and Service Excellence .....	134
2.10.2	Productive Service Employee and Service Excellence .....	136
2.10.3	Technology Innovation and Service Excellence .....	138
2.10.4	Internal Marketing and Service Excellence .....	141
2.11	Chapter summary .....	151
3	Chapter Overview .....	152
3.1	Research Paradigm .....	152
3.2	Research Design .....	154
3.2.1	Study Population .....	156



3.2.2	Study Setting .....	157
3.2.3	Unit of Analysis .....	157
3.2.4	Sample Frame .....	157
3.2.5	Sample Size .....	158
3.2.6	Sources of Data .....	161
3.2.7	Respondent .....	162
3.2.8	Subject .....	162
3.2.9	Research Approach .....	165
3.3	Research Strategy .....	166
3.3.1	Sampling Technique .....	167
3.3.2	Methods of Data Collection .....	168
3.4	Instrument Design .....	169
3.4.1	Scales Measurement .....	169
3.4.2	Questionnaire Development .....	171
3.5	Pilot Study .....	180
3.6	Dataanalysis .....	181
3.6.1	Descriptive Data Analysis .....	183
3.6.2	Non-descriptive Data Analysis .....	183
3.7	Chapter Summary .....	190
4	Chapter Overview .....	191
4.1	Descriptive Analysis .....	192
4.1.1	ResponseRate .....	192
4.1.2	Data Screening Procedures -Exploratory Data Analysis (EDA) ...	194
4.1.3	Respondents' Profile .....	201
4.1.4	Respondent's Demographic Profile .....	201

4.2	Statistical Analysis (non-descriptive) .....	206
4.2.1	Assessment of Measurement Model .....	207
4.2.2	Assessment of Structural Model .....	213
4.3	Summary of the chapter .....	227
5	Chapter Overview .....	228
5.1	Recapitulation of the Study's Findings .....	229
5.2	Discussion of the Findings .....	233
5.2.1	Managerial Competency and Service Excellence .....	234
5.2.2	Productive Service Employee and Service Excellence .....	235
5.2.3	Technology Innovation and Service Excellence .....	236
5.2.4	Managerial Competency and Internal Marketing .....	237
5.2.5	Productive Service Employee and Internal Marketing .....	239
5.2.6	Technology Innovation and Internal Marketing .....	241
5.2.7	Internal Marketing and Service Excellence .....	242
5.2.8	The Mediating Role of Internal Marketing on the relationship between Managerial Competency and Service Excellence .....	243
5.2.9	The Mediating Role of Internal Marketing on the relationship between Productive Service Employee and Service Excellence .....	245
5.2.10	The Mediating Role of Internal Marketing on the relationship between Technology Innovation and Service Excellence .....	246
5.3	Implication of the Study .....	247
5.3.1	Theoretical Implication .....	247
5.3.2	Methodological Implication .....	250
5.3.3	Practical Implication .....	251
5.4	Limitation of the Study and Suggestions for Future Study .....	256
5.5	Conclusion .....	258

References .....	261
Appendix A: Questionnaire Set 1 .....	280
Appendix B: Questionnaire Set 2 .....	283
Appendix C: Sample Frame .....	289
Appendix D: Table for Determining Sample Size .....	300
Appendix E: Pilot Study Results .....	301



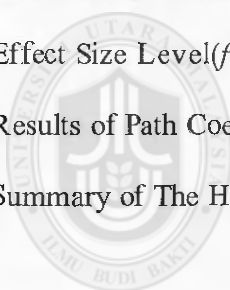
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### List of Tables

Table 1: Complaints on Services Performance at the Malaysian Higher Education Industry .....	13
Table 2: Issues of Low Service Performance in the Higher Education Industry .....	19
Table 3: List of Malaysian Public Universities by Category .....	37
Table 4: Malaysian PUs Rank in QS Asian University Ranking .....	38
Table 5: The Budget Allocation for Public Universities in Malaysia (2015-2018).....	40
Table 6: Summary of Production Process in Each of Economy Sectors .....	46
Table 7: Differentiation on Manufacturing Production and Service Production .....	47
Table 8: Differences Between Manufacturing industry and Service Industry .....	48
Table 9: The Service Excellence Drivers.....	57
Table 10: The Antecedents of Managerial Competency.....	72
Table 11 The Concept of Employee Productivity.....	84
Table 12: The Antecedents of Employee Productivity .....	87
Table 13: The Antecedents of Technology Innovation.....	104
Table 14: Definitions of Internal Marketing .....	122
Table 15: The Antecedents of Internal Marketing .....	127
Table 16: Extracted Table of Sample Size.....	158
Table 17: Sample Size Calculation .....	160
Table 18: Summary of Measurement Development .....	170
Table 19: Summary of Questionnaire Layout.....	171
Table 20: Measurement Items for Service Excellence Performance .....	172
Table 21: Measurement Items for Managerial Competency .....	174
Table 22: Measurement Items for Productive Service Employee .....	176
Table 23: Measurement Items for Technology Innovation.....	177

Table 24: Measurement Items for Internal Marketing .....	178
Table 25: Reliability on Draft of Final Instrument (Pilot Study) .....	180
Table 26: The Respondents Response Rate .....	194
Table 27: Frequencies Statistics Analysis for Missing Data .....	195
Table 28: Numerical Normality Test - Skewness & Kurtosis Value .....	198
Table 29: Summary of Sample Frame and Sample Size .....	202
Table 30: Respondents' Demographic Profiles .....	205
Table 31: Internal Consistency Reliability Assessment.. .....	210
Table 32: Discriminant Validity Test – Heterotrait-Monotrait Ratio (HTMT) .....	212
Table 33: Inner VIF value amongst variables (Vertical Collinearity) .....	215
Table 34: Blindfolding Result - Predictive Relevance $Q^2$ .....	218
Table 35: Effect Size Level( $f^2$ ) of Exogenous on Endogenous Variables .....	219
Table 36: Results of Path Coefficient .....	222
Table 37: Summary of The Hypotheses Testing Results .....	225



## List of Figures

Figure 1: Transformation Plan of Malaysian Higher Education .....	34
Figure 2: Budget Allocation for Public Universities in Malaysia (2012-2018) .....	39
Figure 3: Service Production Process .....	48
Figure 4: The illustration of Power shifting in Marketing Revolution .....	108
Figure 5: New Market Segmentation in Digital Economy .....	109
Figure 6: The Service Excellence Performance Applying the R-A Theory .....	132
Figure 7: Proposal of Research Model.....	133
Figure 8: The Relationship Possesses by Intervening Variable and Other Variables	143
Figure 9: Relationships Between Variables Under Study.....	149
Figure 10: Summary of Research Design .....	155
Figure 11: Calculation of Sample Size Applying GPower .....	160
Figure 12: Illustration of Undertaken Sampling Processes.....	168
Figure 13: Shape of Data Distribution .....	199
Figure 14: Plots of Data Distribution.....	200
Figure 15: PLS Algorithm of the items for the UniverSE Scale Measurement .....	209
Figure 16: Proposed Structural Model .....	214
Figure 17: Algorithm result of $R^2$ .....	217
Figure 18: Bootstrapping result .....	224



### List of Appendices

Appendix A	Questionnaire Set 1_ Internal Client
Appendix B	Questionnaire Set 2_ Administrator/Manager
Appendix C	Sample frame
Appendix D	Table for Determining Sample Size
Appendix E	Pilot Study Result



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### List of Abbreviation

IVs	Independent Variables
DV	Dependent Variable
MV	Mediating Variable
HEIs	Higher Education Institutions
HEI	Higher Education Industry
MOHE	Ministry of Higher Education, Malaysia
PU	Public Universities
GDP	Gross national product
USA	United States of America
UK	United Kingdom
TI	Technology Innovation
IT	Information Technology
IM	Internal Marketing
NFP	Not for Profit
SE	Service Excellence
SQ	Service Quality
HRM	Human Resource Management
SMEs	Small and Medium Enterprises
WOM	Words of Mouth
CR	Composite reliability

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1 Chapter One: An Overview**

This chapter presents an overview of this study which elaborates on the study background, the problems statement, the study's questions and objectives, the significance of the study, the scope of this study and the definition of key terms employed under this study. Finally, the chapter ends with this study structures.

##### **1.1 Background of the Study**

The importance of the Higher Education Industry (HEI) to every country in the world has been well articulated and justified as a significant pillar in growing the capacity of citizens to generate human capital as well as economic development (Muriuki, 2017; Reza, 2016). The HEI has been identified as a service sector that contributes to social welfare and community, creating a special invisible characteristic of service products that are very difficult to manage or market (Uncles, 2018; Berbegal-Mirabent & Ribeiro-Soriano, 2015; Sekaran & Bougie, 2013). In addition, higher education institutions (HEIs) have been regarded as a major service provider for a variety of stakeholders with a dynamic service mechanism (Ciancio, 2018). Precisely, 'Educational services are characterised by a greater amount of interpersonal contact, complexity, divergence, and customisation than other service business' (Bianchi, 2013, pg.3).



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## Appendix A: Questionnaire Set 1

### Questionnaire Set 1 (Internal Client)

The Service Excellence Performance of Non-academic Service at Unit/Department in Malaysian Public University. *(Tahap Kecemerlangan Perkhidmatan Bukan Akademik di Unit/Bahagian di Universiti Awam Malaysia)*

The main purpose of this study is to measure the service excellence performance of non-academic service at unit/department in Malaysian public universities. Your honest commitment in providing honest feedback will produce a quality result. Therefore, it will help this study to come out with good suggestions in improving the service excellence performance of non-academic service at Malaysian public university.

*(Kajian ini adalah untuk mengukur tahap kecemerlangan perkhidmatan bukan akademik di kalangan unit/bahagian di universiti awam Malaysia. Kerjasama tuan/puan amat diperlukan dalam memberikan maklumbalas yang tepat untuk menzahirkan hasil kajian yang berkualiti. Semoga kajian ini akan dapat memberikan cadangan yang terbaik dalam usaha meningkatkan kecemerlangan perkhidmatan bukan akademik di universiti awam Malaysia.)*

This questionnaire comprises of 2 sections (part 1&2), which will take approximately 5 to 10 minutes to complete. Thank you for your kind cooperation. *(Set soalan ini mengandungi 2 bahagian yang akan mengambil masa lebih kurang 5 ke 10 minit untuk dilengkapkan. Segala kerjasama dan sumbangan yang diberikan didahulukan dengan ucapan terima kasih.)*

*Research Team:*

Hasfizani Haji Ariffin (USM), 2. Sany Sanuri Mohd Mokhtar (UUM) & 3. Yusmani Mohd Yusoff(UUM)

*Acknowledgement:* Special thanks to the Ministry of Education Malaysia for the financial assistance.

*(Note: This study is strictly confidential)*



## PART 1: RESPONDENT'S PROFILE

This section seeks for general information of a respondent. Please tick (/) the appropriate response in the boxes provided. (*Seksyen ini memerlukan maklumat ringkas mengenai responden soal selidik ini. Sila tandakan (/) bagi jawapan yang sesuai dalam kotak yang disediakan.*)

1. Age (*umur*): 

	Below 30		31-40		41-50		Above 50
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2. Gender 

	Male ( <i>lelaki</i> )		Female ( <i>perempuan</i> )
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 (*jantina*):

3. Internal client identity (*Identiti pelanggan dalaman*):

	Employee ( <i>staff</i> )		Student ( <i>pelajar</i> )
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4. Year of studying/working at Malaysian Public University (*tahun berkhidmat di universiti awam*):

a. < 2 yrs (*melebihi 2 tahun*)


b. > 2 yrs (*melebihi 2 tahun*)

5. Your educational level (*tahap pendidikan*):

	Diploma		Degree		Master		PhD
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6. Have you heard about service excellence performance?  
(*Adakah anda mengetahui tentang kecemerlangan perkhidmatan?*)

	Yes		No
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7. Do you feel that this unit/department has practiced the service excellence performance? (*Adakah anda merasakan unit/bahagian ini mengamalkan kecemerlangan perkhidmatan?*)

	Yes		No
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<b>PART 2: RESPONDENT'S FEEDBACK :</b> This section is looking for honest feedback from respondent regarding the level of excellent service provided. Please circle (O) the number that is appropriate to represent your answer. <i>(Bahagian ini mencari maklum balas yang jujur daripada responden berkaitan tahap perkhidmatan cemerlang yang di berikan. Sila bulatkan (O) nombor yang sesuai untuk mewakili jawapan anda.)</i>									
The questions are on the Service Excellence Performance of non-academic services at unit/department in Malaysian public universities.		Interval Numerical Scales							
1.	This unit/department is committed in providing the services to its clients excellently. <i>(Unit/bahagian ini sangat bersungguh untuk memberi perkhidmatan kepada pelanggan mereka dengan cemerlang)</i>	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied
2.	The services provided by this unit/department are suitable and fulfilling the clients' needs. <i>(Perkhidmatan yang disediakan oleh unit/bahagian ini adalah sesuai dan menepati keperluan pelanggan)</i>	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied
3.	This unit/department provides excellent services to its clients. <i>(Unit/bahagian ini memberikan perkhidmatan yang cemerlang kepada pelanggan)</i>	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied
4.	This unit/department solves their clients' problems/complaints as soon as possible <i>(Unit/bahagian ini menangani masalah/aduan pelanggan mereka dengan segera)</i>	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied
5.	This unit/department has enough resources (Eg.: skillful staff) to provide excellent services. <i>(Unit/bahagian ini mempunyai sumber (Cth.: staf yang mahir) yang mencukupi untuk memberikan perkhidmatan yang cemerlang)</i>	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied
6.	This unit/department regularly improves their work processes in serving their clients. <i>(Unit/bahagian ini selalu meningkatkan/memperbaiki proses kerja dalam memberikan perkhidmatan kepada pelanggan mereka)</i>	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied
7.	The service process provided in this unit/department is not complicated. <i>(Perkhidmatan yang disediakan di unit/bahagian ini adalah tidak rumit)</i>	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied
8.	This unit/department plays their roles accordingly. <i>(Unit/bahagian ini berperanan seajar dengan matlamatnya)</i>	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied
9.	The staff of this unit/department are capable of providing excellent services. <i>(Staf-staf di unit/bahagian ini dilihat mampu untuk memberikan perkhidmatan cemerlang)</i>	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied
10.	The staff of this unit/department are motivated and friendly to the clients. <i>(Staf-staf di unit/bahagian ini adalah bersemangat dan mesra pelanggan)</i>	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied

## Appendix B: Questionnaire Set 2

### Questionnaire Set 2 (Administrator/Manager)

The Service Excellence Performance of Non-academic Service at Unit/Department in Malaysian Public University. *(Tahap Kecemerlangan Perkhidmatan Bukan Akademik di Unit/Bahagian di Universiti Awam Malaysia)*

The main purpose of this study is to measure the service excellence performance of non-academic service at unit/department in Malaysian public universities. Your honest commitment in providing honest feedback will produce a quality result. Therefore, it will help this study to come out with good suggestions in improving the service excellence performance of non-academic service at Malaysian public university.

*(Kajian ini adalah untuk mengukur tahap kecemerlangan perkhidmatan bukan akademik dikalangan unit/bahagian di universiti awam Malaysia. Kerjasama tuan/puan amat diperlukan dalam memberikan maklumbalas yang tepat untuk menzahirkan hasil kajian yang berkualiti. Semoga kajian ini akan dapat memberikan cadangan yang terbaik dalam usaha meningkatkan kecemerlangan perkhidmatan bukan akademik di universiti awam Malaysia.)*

This questionnaire comprises of 2 sections (part 1&2), which will take approximately 7 to 10 minutes to complete. Thank you for your kind cooperation. *(Set soalan ini mengandungi 2 bahagian yang akan mengambil masa lebih kurang 7 ke 10 minit untuk dilengkapkan. Segala kerjasama dan sumbangan yang diberikan didahulukan dengan ucapan terima kasih.)*

#### Research Team:

Hasfizani Haji Ariffin (USM), 2. Sany Sanuri Mohd Mokhtar (UUM) & 3. Yusmani Mohd Yusoff (UUM)

**Acknowledgement:** Special thanks to the Ministry of Education Malaysia for the financial assistance.

*(Note: This study is strictly confidential)*



### PART 1: RESPONDENT'S PROFILE

This section seeks for general information of a respondent. Please tick (/) the appropriate response in the boxes provided. (*Seksyen ini memerlukan maklumat ringkas mengenai responden soal selidik ini. Sila tandakan (/) bagi jawapan yang sesuai dalam kotak yang disediakan.*)

1. Age (*umur*):

<input type="checkbox"/>	Below 30	<input type="checkbox"/>	31-40	<input type="checkbox"/>	41-50	<input type="checkbox"/>	Above 50
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2. Gender (*jantina*):

<input type="checkbox"/>	Male ( <i>lelaki</i> )	<input type="checkbox"/>	Female ( <i>perempuan</i> )
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3. Year of service at public university (*tahun berkhidmat di universiti awam*):

a. < 5 yrs (*kurang dari 5 thn*)

b. 5 to 10 yrs (*5 hingga 10 thn*)

c. > 10 yrs (*melebihi 10 thn*)

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

4. Your educational level (*tahap pendidikan*):

<input type="checkbox"/>	Diploma	<input type="checkbox"/>	Degree	<input type="checkbox"/>	Master	<input type="checkbox"/>	PhD
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5. Did your unit/department has practiced the service excellence performance?  
(*Adakah unit/bahagian tuan telah mengamalkan kecemerlangan perkhidmatan?*)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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6. Do you know/notice about the service excellence performance? (*Adakah anda mengetahui tentang kecemerlangan perkhidmatan?*)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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PART 2: RESPONDENT'S FEEDBACK: This section is looking for honest feedback from respondent regarding the level of excellent service provided. Please tick (/) or circle (O) the number that is appropriate to represent your answer. (Bahagian ini mencari maklum balas yang jujur daripada responden berkaitan tahap perkhidmatan cemerlang yang di berikan. Sila tandakan (/) atau bulatan (O) nombor yang sesuai untuk mewakili jawapan anda.)										
The questions are on Managerial Competency, Productive Service Employee, Technology Innovation and Internal Marketing strategy in the unit/department at public university in Malaysia		Interval Numerical Scales								
1.	I always plan the works and schedule according to my unit/department priorities (Saya selalu menyusun atur tugas dan tindakan mengikut keutamaan unit/bahagian)	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
2.	I have maximised the resources within this unit/department to provide excellent service. (Saya memaksimumkan penggunaan sumber-sumber di dalam unit/bahagian ini untuk menyediakan perkhidmatan yang cemerlang)	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
3.	I communicate the organisation's plans and goals with all staffs in this unit/department. (Saya berkongsi tentang halatuju organisasi kepada semua staf di unit/bahagian ini)	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
4.	I am a person of honesty and integrity in executing my duty. (Saya seorang yang jujur dan berintegriti dalam melaksanakan tugas saya)	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
5.	I encourage my employee to deliver excellent service and monitor the work performance of my staffs regularly. (Saya menggalakkan staf-staf saya untuk memberikan perkhidmatan yang cemerlang dan memantau prestasi kerja mereka secara berkala)	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
6.	I am a computer expertise. (Saya mahir menggunakan komputer)	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
7.	I always follow current trend (Eg: Information technology) in fulfilling my clients' need. (Saya sentiasa mengikuti perkembangan semasa (cth: Teknologi maklumat) untuk memenuhi kehendak pelanggan)	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied

8. I am capable of evaluating and interpreting data into relevant information for decision making. <i>(Saya berkemampuan menganalisa dan menterjemahkan data kepada maklumat berguna untuk pembuatan keputusan)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
9. My staffs are empowered to give suggestion and make a simple decision. <i>(Staf-staf saya diberi kuasa untuk membuat cadangan dan keputusan kecil)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
10. I will acknowledge good efforts by my staffs <i>(Saya akan mengiktiraf setiap usaha yang dilakukan oleh staf-staf saya)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
11. I always learn new knowledge and referring to scientific study results for better planning and decision making <i>(Saya selalu mempelajari perkara baru berkaitan dengan bidang tugas dan merujuk kepada penemuan kajian saintifik untuk tujuan perancangan dan pembuatan keputusan)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
12. My staffs can accomplish any task given quickly and efficiently. <i>(Staf-staf saya dapat melaksanakan tugas dengan cepat dan efisien)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
13. My staffs show high quality work. <i>(Staf-staf saya menghasilkan tugas yang berkualiti tinggi)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
14. I am concerned about my staffs' personal problem. <i>(Saya mengambil berat tentang masalah peribadi staf-staf saya)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
15. The staffs in this unit/department are happy and honest in performing their works. <i>(Staf-staf di unit / bahagian ini gembira dan jujur dalam melaksanakan tugas mereka)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
16. My staffs will receive reward for their excellent performance. <i>(Staf-staf saya akan menerima ganjaran untuk prestasi cemerlang mereka)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied



17. I always show my gratitude to my staffs for their excellent performance. <i>(Saya sentiasa menunjukkan penghargaan saya kepada staf-staf saya atas prestasi cemerlang mereka)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
18. My unit/department will always keep abreast with the latest technology. <i>(Unit / bahagian saya sentiasa mengikuti perkembangan teknologi yang terkini)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
19. My unit/department will be incorporated with latest technology for excellent services. <i>(Unit/bahagian saya akan sentiasa mengemaskini dan mengadaptasi teknologi terkini untuk memberikan perkhidmatan yang cemerlang)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
20. My unit/department will use the latest and appropriate technology for enhancing work quality and reducing process cost. <i>(Unit/bahagian saya menggunakan teknologi terkini yang bersesuaian untuk meningkatkan kualiti perkhidmatan dan menjimatkan kos)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
21. The productivity of my staffs will increase with the use of the latest appropriate technology. <i>(Produktiviti staf-staf saya akan meningkat dengan menggunakan teknologi terkini yang sesuai.)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
22. The adaptation of technology innovation in my department has improved the process services. <i>(Inovasi teknologi yang diadaptasi di unit/bahagian saya telah meningkatkan proses perkhidmatan)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
23. This unit/department has provided conducive facilities and environment (Eg.: computer, printer, internet, air condition) to it staffs. <i>(Unit/bahagian ini menyediakan kelengkapan dan persekitaran yang kondusif (Cth.: computer, pencetak, internet dan penyaman udara) kepada semua staf)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
24. This unit/department provides basic needs (Eg.: insurance, remuneration scheme) for its staffs. <i>(Unit/bahagian ini menyediakan keperluan asas (Cth.: insuran, skim gaji) kepada semua staf)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied



25. This unit/department encourages staffs' development through guidance, empowerment and participation. <i>(Unit/bahagian ini memperkasakan staf-staf dengan memberi panduan, pemberdayaan (memberi kuasa) dan penyertaan)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
26. This unit/department provides appropriate workload to its staffs. <i>(Unit/bahagian ini memastikan beban tugas yang bersesuaian bagi semua staf)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
27. This unit/department is concerned with staffs' satisfaction and happiness. <i>(Unit/bahagian ini sangat prihatin dalam memastikan staf-staf berpuas hati dan gembira)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
28. This unit/department provides training programmes to improve the staffs' knowledge and skills. <i>(Unit/bahagian ini menyediakan program latihan yang bersesuaian untuk meningkatkan pengetahuan dan kebolehan semua staf)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
29. This unit/department plans for career development of its staffs. <i>(Unit/bahagian ini merancang perkembangan kerjaya bagi semua staf)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
30. This unit/department treats its staffs equally and fairly. <i>(Unit/bahagian ini memberi peluang yang adil dan sama rata kepada semua staf)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
31. This unit/department practices a transparent communication channels to its staffs. <i>(Unit/bahagian ini membudayakan komunikasi yang telus kepada semua staf)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
32. This unit/department anticipates all staffs in decision-making processes. <i>(Unit/bahagian ini membudayakan keterlibatan staf dalam mencadangkan pembuatan keputusan)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied
33. This unit/department gives rewards to excellent staffs. <i>(Unit/bahagian ini menyediakan ganjaran bagi staf yang cemerlang)</i>	Extremely Dissatisfied	1	2	3	4	5	6	7	Extremely Satisfied

### Appendix C: Sample Frame

No.	Public University	List of Non-academic Units/Departments at PUs
1	Universiti Malaya	<ol style="list-style-type: none"> <li>1. Registrar's Office</li> <li>2. Bursary</li> <li>3. Academic Administration and Services Centre</li> <li>4. International Student Services Unit</li> <li>5. Academic Administration and Services Centre</li> <li>6. Examination &amp; Graduation Section</li> <li>7. Scholarship &amp; Sponsorship Unit</li> <li>8. Administrative &amp; Senate Management Section</li> <li>9. Student Affairs Division</li> <li>10. Student Development Centre</li> <li>11. Graduate Employability &amp; Entrepreneurship Centre</li> <li>12. Psychology Management &amp; Counseling Section</li> <li>13. Accommodation Section</li> <li>14. Student Health Centre</li> <li>15. Department of Development &amp; Asset Maintenance</li> <li>16. Centre for Information Technology</li> <li>17. Security Office</li> <li>18. Sport Centre</li> </ol>
2	Universiti Kebangsaan Malaysia	<ol style="list-style-type: none"> <li>19. Registrar's Office</li> <li>20. Bursary</li> <li>21. Centre for Academic Management</li> <li>22. Graduate Centre</li> <li>23. Industry Liaison Office</li> <li>24. Integrity Unit</li> <li>25. International Relations Centre (UKM Global)</li> <li>26. Centre for Collaborative Innovation</li> <li>27. Centre for Educational Extension</li> <li>28. Centre for Corporate Communications</li> <li>29. Examination &amp; Graduation Section</li> <li>30. Scholarship &amp; Sponsorship Unit</li> <li>31. Administrative &amp; Senate Management Section</li> <li>32. Student Affairs Division</li> <li>33. Student Development Centre</li> <li>34. Graduate Employability &amp; Entrepreneurship Centre</li> <li>35. Psychology Management &amp; Counseling Section</li> <li>36. Student Accommodation Unit</li> <li>37. University Health Centre</li> <li>38. Prasarana _ UKM</li> </ol>

		39. Information Technology Centre
		40. Security Office
		41. University Sports Centre
3	Universiti Teknologi Malaysia	42. Registrar's Office
		43. Bursary
		44. Academic Administration and Services Centre
		45. International Student Services Unit
		46. Academic Administration and Services Centre
		47. Examination & Graduation Section
		48. Scholarship & Sponsorship Unit
		49. Administrative & Senate Management Section
		50. Student Affairs Division
		51. Student Development Centre
		52. Graduate Employability & Entrepreneurship Centre
		53. Psychology Management & Counseling Section
		54. Accommodation Section
		55. Student Health Centre
		56. Department of Development & Asset Maintenance
		57. Centre for Information Technology
		58. Security Office
		59. Sport Centre
4	Universiti Sains Malaysia	60. Registry Department
		61. Bursary Department
		62. Vice-Chancellor's Office
		63. Division of Academic & International Affairs
		64. Division of Research & Innovation
		65. Division of Students Development Affairs & Alumni
		66. Division of Industrial & Community Network
		67. Institutional Planning & Strategic Centre
		68. Internal Audit Unit
		69. Occupational Safety & Health Unit
		70. Legal Office
		71. Centre for Innovation and Productivity in Public Administration
		72. International Mobility & Collaboration Centre
		73. Pusat Transformasi Insan
		74. Penerbit USM
		75. Sains@USM
		76. Library
		77. Centre for Knowledge, Communication & Technology
		78. Islamic Centre
		79. Centre for Co-Curricular Programme



		80. Security Department 81. Development Department 82. Museum and Arts Gallery 83. Student Development Advisory Unit 84. Counseling Unit 85. Sejahtera Centre 86. Sports and Recreation Centre 87. Animal Research and Service Centre 88. Centre for Neuroscience Services and Research 89. Dewan Budaya USM 90. Pejabat Zakat, Waqaf dan Infaq
5	Universiti Putra Malaysia	91. Registrar 92. Bursar 93. Development and Asset Management Office 94. Office of the Legal Advisor 95. Office of the Vice Chancellor 96. Corporate Strategy and Communications Office 97. Internal Audit Division 98. Occupational Safety and Health Management Office 99. Centre for Quality Assurance 100. Centre for Management of Waqf, Zakat and Endowment 101. Academic and International 102. Research and Innovation 103. Student Affairs and Alumni 104. Industry and Community Relations 105. University Islamic Centre 106. Sultan Salahuddin Abdul Aziz Shah Arts and Cultural Centre 107. Entrepreneurial Development and Graduate Marketability 108. Centre for Diagnostic Nuclear Imaging 109. Centre for the Advancement of Language Competence 110. Research Management 111. Academic Development 112. Foundation Studies for Agricultural Science 113. Sports 114. Cancer Resource & Education Centre 115. Co-Curriculum and Student Development Centre 116. University Health 117. InfoComm Development 118. University Community Transformation Centre

		119. Alumni 120. Centre for Industry Relations & Networking 121. Putra International 122. Centre for Quality Assurance 123. Division of Admission & Division of Academic Governance 124. Students Affairs Division 125. Security 126. Counselling
6	Universiti Teknologi Mara	127. Rector's Office 128. Academic Affairs Department 129. Student Affairs Department 130. Research and Industrial Linkages Department 131. Administration Department 132. Finance Department 133. Library Department 134. Facility Management & ICT Department 135. Auxiliary Police Office 136. Academic Affair Department 137. Strategic Planning Unit 138. Corporate Communications Unit 139. Quality Management Unit 140. International Relation Unit 141. Administration, Activities, and Students' Discipline Unit 142. Co-curriculum Unit 143. Cultural Unit 144. Career & Counselling Unit 145. College Management Unit 146. Health Unit 147. Sport Unit 148. Student Development and Leadership Unit
7	Universiti Islam Antarabangsa Malaysia	149. Residential and Services Department 150. Academic Management and Admission Division 151. Alumni Relations Division 152. Centre for Arts & Cultural Sustainable Development 153. Centre for Community Engagement and Services 154. Centre for IT Advancement 155. Centre for Islamic Economics 156. Centre for Islamisation 157. Centre for Postgraduate Studies 158. Centre for Professional Development 159. Counselling and Career Services Centre

		160. Credited Co-Curricular Department 161. Development Division 162. Disability Services Unit 163. Entrepreneurship Unit 164. Finance Division 165. IIUM Endowment Fund 166. IIUM Health and Wellness Centre 167. IIUM Medical Centre 168. IIUM Press 169. Information Technology Division 170. Management Service Division 171. Office of Internal Audit 172. Office of International Affairs 173. Office of Security Management 174. Office for Strategy and Institutional Change
8	Universiti Malaysia Sabah	175. Bursar 176. Registrar's Office 177. Chancellery Office 178. Centre for Career and Alumni 179. Centre for Internationalisation and Global Engagement 180. UMS Centre for Accounting 181. Centre for Occupational Safety & Health 182. UMS Islamic Centre 183. Centre for Co-curriculum & Student Development 184. UMS Sports Centre 185. Centre for Teaching Excellence & Academic Quality 186. Centre for Postgraduate Studies 187. UMS Press 188. Centre for Research & Innovation 189. Student Affairs Department 190. Centre for Strategic Management & Corporate Communication 191. Security Division 192. Department of Information Technology & Communication 193. Centre for Industry and Community Network 194. Development & Maintenance Office 195. Internal Audit Department 196. EcoCampus Management Centre 197. Centre for E-Learning 198. Centre for Investment, Endowment and Wakaf 199. Minda Lestari Centre



		200. Centre of Data and Information Management 201. Centre of Instrumentation and Science Services 202. UMS Hospital 203. Research & Innovation Management Centre 204. Student Residential and Hospitality Centre 205. Pejabat Penasihat Undang-Undang 206. Library
9	Universiti Malaysia Sarawak	207. Academic Information Services (Library) 208. Information Technology Development & Services 209. Applied Learning & Multimedia 210. Academic Development and Management Division 211. UNIMAS Health Centre 212. Strategic Planning, Quality and Risk Management 213. Student Affairs and Alumni 214. Publisher 215. Bursary 216. Registrar 217. UNIMAS Community Sustainability Centre 218. Development 219. UNIMAS Holdings 220. Islamic Centre 221. Internal Audit
10	Universiti Utara Malaysia	222. Registrar's Office 223. Bursary's Office 224. Development and Maintenance Department 225. Security Department 226. UUM Information Technology 227. UUM Press 228. Cooperative and Entrepreneurship Development Institute 229. Research and Innovation Management Centre 230. Unifilm Studio 231. Business Strategic and Development Department 232. Centre of Excellence and Research Unit 233. National Golf Academy 234. University Sport Centre 235. University Health Centre 236. Student Accommodation Centre 237. Student Welfare Department 238. Student Affairs Office 239. Students Development Centre 240. Post Graduate Centre 241. Co-Curriculum Centre

		242. The Academic Affairs Department 243. Centre for University-Industry Collaboration 244. Internal Audit Office 245. University Counseling Centre
11	Universiti Tun Hussein Onn Malaysia	246. Registrar's Office 247. Bursary 248. University Sport Centre 249. University Health Centre 250. Student Accommodation Centre 251. Student Welfare Department 252. Student Affairs Office 253. Students Development Centre 254. Post Graduate Centre 255. Academic Management Office 256. IT Centre 257. Development Office 258. Security Department 259. Internal Audit Office 260. University Counseling Centre
12	Universiti Teknikal Malaysia Melaka	261. Registrar's Office 262. Bursary 263. Sport Center 264. Health Center 265. Student Accommodation Unit 266. The Student Welfare Unit 267. Student Affairs Department 268. Student Development Division 269. Post Graduate Center 270. Academic Management Division 271. ICT Center 272. Development Office 273. Security Office
13	Universiti Malaysia Perlis	274. The Library 275. Registrar 276. Bursary 277. Development 278. Security 279. Islamic 280. Multimedia 281. Health 282. Institute of Strategic, Studies, Leadership & Community 283. UniMAP Publication

		284. Occupational Safety & Health 285. Centre for International Affairs 286. Sport Centre 287. Sustainable Leadership Academic Development 288. Entrepreneurship Commercialisation for Intellectual Property Management 289. Industrial & Governmental Collaboration
14	Universiti Malaysia Terengganu	290. Student's Affairs 291. Academic & International 292. Internal Audit 293. Integrity Unit 294. Islamic Centre 295. Registrar Office 296. Bursar Office 297. PSNZ Library 298. Digital Ecosystem & Knowledge Resource 299. Development & Assets Office 300. Centre of Holistic Development and Co-curriculum 301. Residential College 302. Alumni Centre 303. Centre for Entrepreneur & Career 304. UMT Sailing Centre 305. Centre for Academic Management & Quality 306. International Centre 307. Graduate School 308. Corporate Communication Centre
15	Universiti Malaysia Pahang	309. Research & Innovation 310. Academic & International Affairs 311. Student Affairs & Alumni 312. Centre for International Relations 313. Registry 314. Bursary 315. Library 316. Centre for Corporate and Quality Affairs 317. Property Management & Development 318. Occupational Safety & Health Management Office 319. Industry & Community Network Department 320. Centre for Academic Innovation & Competitiveness 321. Central Lab 322. Islamic Centre & Human Development 323. Entrepreneur Centre 324. Sports Centre 325. ICT Centre



		326. Career Placement & Development Centre 327. Internal Audit Unit 328. University Health Centre 329. Centre for Technology Management and Services
16	Universiti Sains Islam Malaysia	330. Department of Registrar 331. Department of Bursary 332. Library 333. Department of Development & Facilities Management 334. Centre for Quality Assurance, Policy and Academic Excellence 335. Strategic Communication Centre 336. Centre for Awqaf and Zakat 337. Internal Audit Division 338. Legal Department 339. Student Affairs Division 340. Securities Division 341. Klinik Pakar Kesihatan USIM 342. Research & Innovation Management Centre 343. Centre for Community Engagement and Industrial Networking 344. USIM Publisher 345. GENIUS Insan College 346. University Centre for Entrepreneurship 347. Centre of Soft Skills Development 348. Pusat Islam 349. Sport Centre 350. Cultural Centre 351. University Health Centre 352. Student Housing Centre 353. Centre of Alumni and Career 354. Academic Support & Services Centre 355. Division of Academic Management 356. Centre for Graduate Studies 357. USIM 'Alamiyyah 358. Centre for Global Open Access Learning, Immersive Technology & Quality Assurance 359. Centre for Core Studies 360. Islamic Science Institute
17	Universiti Sultan Zainal Abidin	361. Office of The Registrar 362. Bursar's Office 363. Legal Advisor's Office 364. Wakaf & Endowment Office 365. Al-Wathiqu Billah Library

		366. Department of Security, Safety & Health 367. Residential College & Student Health 368. Centre for Corporate Communications & Relations Management 369. Centre for Strategic Planning & Quality & Risk System Management 370. Centre for Income Generation, Investment & Industrial Linkages 371. University Hospital Development Centre 372. Centre for Talent & Training Management 373. Centre for Management of Academic Excellence & Internationalisation 374. Graduate School 375. Property Management Center 376. Infostructure & Network Management Centre 377. Student's Development Holistic Centre 378. Centre of Alumni, Entrepreneurship & Society 379. Sports & Recreational Centre 380. Arts & Heritage Centre 381. UniSZA Press 382. Internal Audit Unit
18	Universiti Malaysia Kelantan	383. Legal Advisor Office 384. Registrar Office 385. Bursar Office 386. Office of Library and Knowledge Management 387. Corporate Communication Centre 388. Computing and Informatics Centre 389. Corporate Strategy Centre 390. Institute for Small and Medium Enterprise 391. Universiti Malaysia Kelantan Entrepreneurship Institute 392. Global Entrepreneurship Research and Innovation Centre
19	Universiti Pertahanan Nasional Malaysia	393. Registrar's Department 394. Bursary Department 395. General Tun Ibrahim Library 396. Leadership Chair Office 397. Development and Maintenance Department 398. Leadership, Corporate and International Affairs 399. Military Training Academy 400. Academic Management Division 401. Internal Audit Unit 402. Centre for Graduate Studies

		403. Centre for Leadership and Professional Development
		404. Centre for Quality Assurance and Data Management
		405. Centre for Communication & Information Technology
		406. Academy of Defense Fitness
		407. UPNMPress



**UUM**  
Universiti Utara Malaysia



## Appendix D: Table for Determining Sample Size

609 EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT

TABLE 1  
*Table for Determining Sample Size from a Given Population*

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1700	291
15	14	230	144	1800	297
20	19	240	148	1900	302
25	24	250	152	2000	308
30	28	260	155	2100	313
35	32	270	159	2200	317
40	36	280	162	2300	322
45	40	290	165	2400	327
50	44	300	169	2500	331
55	48	310	173	2600	336
60	52	320	176	2700	338
65	56	330	180	2800	341
70	60	340	183	2900	346
75	64	350	186	3000	351
80	68	360	190	3100	354
85	72	370	193	3200	357
90	76	380	196	3300	361
95	80	390	199	3400	364
100	84	400	203	3500	367
110	92	420	209	3600	369
120	100	440	214	3700	370
130	107	460	217	3800	375
140	113	480	220	3900	377
150	118	500	223	4000	379
160	123	520	226	4100	380
170	127	540	228	4200	381
180	132	560	231	4300	382
190	136	580	233	4400	383
200	140	600	235	4500	384
210	144	620	237	4600	385
220	148	640	239	4700	386
230	152	660	241	4800	387
240	155	680	243	4900	388
250	159	700	245	5000	389
260	162	720	247	5100	390
270	165	740	249	5200	391
280	169	760	251	5300	392
290	173	780	253	5400	393
300	176	800	255	5500	394
310	179	820	257	5600	395
320	183	840	259	5700	396
330	186	860	261	5800	397
340	189	880	263	5900	398
350	193	900	265	6000	399
360	196	920	267	6100	400
370	199	940	269	6200	401
380	203	960	271	6300	402
390	206	980	273	6400	403
400	209	1000	275	6500	404
410	212	1020	277	6600	405
420	215	1040	279	6700	406
430	218	1060	281	6800	407
440	221	1080	283	6900	408
450	224	1100	285	7000	409
460	226	1120	287	7100	410
470	229	1140	289	7200	411
480	231	1160	291	7300	412
490	233	1180	293	7400	413
500	235	1200	295	7500	414
510	237	1220	297	7600	415
520	239	1240	299	7700	416
530	241	1260	301	7800	417
540	243	1280	303	7900	418
550	245	1300	305	8000	419
560	247	1320	307	8100	420
570	249	1340	309	8200	421
580	251	1360	311	8300	422
590	253	1380	313	8400	423
600	255	1400	315	8500	424
610	257	1420	317	8600	425
620	259	1440	319	8700	426
630	261	1460	321	8800	427
640	263	1480	323	8900	428
650	265	1500	325	9000	429
660	267	1520	327	9100	430
670	269	1540	329	9200	431
680	271	1560	331	9300	432
690	273	1580	333	9400	433
700	275	1600	335	9500	434
710	277	1620	337	9600	435
720	279	1640	339	9700	436
730	281	1660	341	9800	437
740	283	1680	343	9900	438
750	285	1700	345	10000	439
760	287	1720	347		
770	289	1740	349		
780	291	1760	351		
790	293	1780	353		
800	295	1800	355		
810	297	1820	357		
820	299	1840	359		
830	301	1860	361		
840	303	1880	363		
850	305	1900	365		
860	307	1920	367		
870	309	1940	369		
880	311	1960	371		
890	313	1980	373		
900	315	2000	375		
910	317	2020	377		
920	319	2040	379		
930	321	2060	381		
940	323	2080	383		
950	325	2100	385		
960	327	2120	387		
970	329	2140	389		
980	331	2160	391		
990	333	2180	393		
1000	335	2200	395		

Note.—*N* is population size.  
*S* is sample size.

Source: Krejcie & Morgan (1970).

### Appendix E: Pilot Study Results

#### a. Reliability Analysis for Service Excellence (Pilot Study)

##### Reliability Statistics

Cronbach's Alpha	N of Items
.935	10

##### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SE1	44.10	72.516	.810	.925
SE2	43.85	71.082	.880	.921
SE3	44.10	71.674	.908	.921
SE4	44.35	71.924	.723	.929
SE5	44.15	72.976	.646	.933
SE6	44.00	70.211	.811	.924
SE7	43.95	74.787	.534	.939
SE8	43.55	72.892	.842	.924
SE9	43.60	73.832	.679	.931
SE10	43.55	70.892	.685	.932

#### b. Reliability Analysis for Managerial Competency (Pilot Study)

##### Reliability Statistics

Cronbach's Alpha	N of Items
.862	11

#### c. Reliability Analysis for Productive Service Employee (Pilot Study)

##### Reliability Statistics

Cronbach's Alpha	N of Items
.896	6

## d. Reliability Analysis for Technology Innovation (Pilot Study)

**Reliability Statistics**

Cronbach's	
Alpha	N of Items
.885	5

## e. Reliability Analysis for Internal Marketing (Pilot Study)

**Reliability Statistics**

Cronbach's	
Alpha	N of Items
.938	11

## e. Descriptive Analysis (Pilot Study).

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
SE1	20	3	7	4.70	1.081
SE2	20	3	6	4.95	1.099
SE3	20	3	7	4.70	1.031
SE4	20	1	6	4.45	1.234
SE5	20	2	6	4.65	1.268
SE6	20	2	7	4.80	1.240
SE7	20	2	7	4.85	1.309
SE8	20	4	7	5.25	1.020
SE9	20	3	7	5.20	1.152
SE10	20	3	7	5.25	1.372
MC1	20	4	7	5.85	.671
MC2	20	5	7	6.05	.510
MC3	20	4	7	6.00	.725
MC4	20	4	7	6.35	.813
MC5	20	4	7	6.30	.733
MC6	20	4	7	5.80	.894
MC7	20	5	6	5.75	.444
MC8	20	4	7	5.90	.788
MC9	20	5	7	5.65	.745
MC10	20	5	7	6.05	.759
MC11	20	5	7	6.05	.510
PSE1	20	4	7	5.75	.786

PSE2	20	4	7	5.65	.745
PSE3	20	5	7	5.70	.571
PSE4	20	4	7	5.90	.718
PSE5	20	4	7	5.85	.933
PSE6	20	4	7	6.10	.852
TI1	20	4	7	5.70	.733
TI2	20	4	7	5.90	.718
TI3	20	4	6	5.65	.587
TI4	20	4	7	6.00	.649
TI5	20	3	7	5.90	.912
IM1	20	4	7	6.10	.912
IM2	20	1	7	5.65	1.226
IM3	20	4	7	5.85	.745
IM4	20	4	7	5.95	.686
IM5	20	4	7	5.85	.587
IM6	20	4	7	6.00	.562
IM7	20	4	7	6.05	.686
IM8	20	3	7	6.10	1.021
IM9	20	3	7	6.05	.999
IM10	20	3	7	5.70	.923
IM11	20	3	7	5.95	.945

